



Spokane County
Environmental Services
Kevin R. Cooke, P.E., Director

April 5, 2018

Environmental Protection Agency Region 10
Attn: Jeremy Jennings
300 Desmond Dr. SE, Suite 102
Lacey, WA 98503

RE: Optimization Recommendation Comments for the Colbert Landfill Superfund Site

Dear Jeremy,

Enclosed is a copy of Spokane County's response to the recommendations provided in the EPA's Optimization Review Report for the Colbert Landfill Superfund Site.

If you have any comments or questions, please call me at (509) 238-6607.

Sincerely,

Cassandra Harvey
Water Resource Specialist

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**Spokane County Response to Optimization Recommendations
Colbert Landfill Site**

Recommendation	Implement	Consider	Future Review
5.1 Restart CP-W3		X	
5.2 Improve plume delineation near CP-W3			X
5.3 Conduct annual sampling of 12 supplemental monitoring wells		X	
5.4 Improve characterization of basalt and Latah Formation near CD-08, CD-04, and CP-E2			X
5.5 Characterize area between Landfill and CD-26/CD-23C2			X
5.6 Sample for 1,4-dioxane at lower aquifer extraction wells, compliance wells and 12 supplemental wells			X
5.7 Sample for PFAS at select upper and lower aquifer wells			X
5.8 Update COCs in the Five-Year Review and Final ROD	X		
5.9 Improve reporting	X		
5.10 Reduce monitoring in the upper aquifer	X		

5.1 RESTART CP-W3

The Optimization Report states that there is “ongoing contaminant migration” from CP-W3. The County has been monitoring and sampling, and results provide no indication of plume boundary change or contaminant migration outside of the previously established plume area.

At this time, the County would like to conduct more monitoring and evaluation. The County plans to design and implement a sampling program with Ecology’s approval that will monitor CP-W3 and the surrounding wells more frequently. Coupled with historical data, the County will use the results to ensure the goal of protecting human health and the environment is being fulfilled.

5.2 IMPROVE PLUME DELINEATION NEAR CP-W3

The construction of CD-49 in 2013 was funded by the County to improve plume delineation near CP-W3. Pump tests completed by various consulting firms when the system was designed and implemented clearly show that wells surrounding CP-W3 are within the zone of influence. The Optimization Report did not research nor reference these historical reports. Excerpts from reports can be provided upon request.

5.3 CONDUCT ANNUAL SAMPLING OF 12 SUPPLEMENTAL MONITORING WELLS

The County would like to point out that many of the highlighted cells in Table 5 that indicate exceedances are incorrect. Monitoring results at CD-23C2, CD-26, and CD-01C1/CD-08E1/CP-E3 have consistently shown decreasing trends and contaminant concentration has been quantified at levels well below the Performance Criteria (as shown in the figures previously included in the Comments submitted by the County). The County would be open to including

additional supplemental monitoring wells into the annual sampling program that do show a consistent increasing trend in constituents of concern.

The residential monitoring program will continue in its current form.

5.4 IMPROVE CHARACTERIZATION OF BASALT AND LATAH FORMATION NEAR CD-08, CD-04, AND CP-E2

Aquifer pumping tests were previously conducted on CP-E2, CD-04E1, and CD-08E1 in February 1991 and are available in the Colbert Landfill Remedial Design/Remedial Action Plan of the Phase I Engineering Report. The County does not expect the characterization of Basalt and Latah formations conducted by private consulting firms to have changed in the past 25 years. High concentrations are found at CD-04C1 due to its location in the center of the landfill, which is expected. CD-04E1 was found not to have high concentrations after re-sampling. The County believes that the data do not indicate a need for improvement in characterization.

5.5 CHARACTERIZE AREA BETWEEN LANDFILL AND CD-26/CD-23C2

The County monitors and samples residential wells multiple times a year that lie between CD-26 and CD-23C2 including 1073G-1, 1073 J-1 and 1073L-1. The County also monitors and samples several wells between the aforementioned wells and the landfill boundary as well as wells south of the site in the direction of groundwater flow. At this time, the County does not possess funding for the installation of another well.

5.6 SAMPLE FOR 1,4-DIOXANE AT LOWER AQUIFER EXTRACTION WELLS, COMPLIANCE WELLS AND 12 SUPPLEMENTAL WELLS

The County has previously conducted a 1,4-dioxane investigation and found disjointed areas of contamination rather than a plume. Concentrations of 1,4-dioxane in the area may be influenced by factors unrelated to landfill contamination, such as the presence of septic fields and private dumping in rural communities. The Optimization team stated in their response to the County's comments that the 1,4-dioxane study was conducted before the Shutdown Plan was implemented, and concentrations may have been influenced by pumping. During the operation of the pump and treat facility, detectable concentrations of 1,4-dioxane were never found in the effluent. Furthermore, a work plan has been established by EPA and Ecology that addresses 1,4-dioxane at the Colbert Landfill Site.

5.7 SAMPLE FOR PFAS AT SELECT UPPER AND LOWER AQUIFER WELLS

Although the EPA's understanding of the distribution and persistence of PFAS in groundwater and the human health risks associated with very low levels of exposure continues to expand, the agency still has not set official standards for PFAS nor have they set rules and guidelines on PFAS contamination and remediation methods. Additionally, EPA has not produced any evidentiary historical documentation that supports the theory that Fairchild Air Force Base disposed of substances other than liquid solvents at the Colbert Landfill. The County requests that this recommendation be revisited only when both the EPA has set standards and guidelines for PFAS contamination and if evidence of PFAS disposal at the Colbert Landfill by FAFB is

found. The Optimization Team stated in their response to County comments that it would be prudent to sample for PFAS regardless of evidence or established EPA standards to identify contamination (if any) and its extent. While beneficial, the County believes the prioritization for PFAS sampling should be risk driven, with protection of human health being the County's top priority. Spokane County currently does not have any residential wells being used for drinking water within the groundwater plume.

5.8 UPDATE COCS IN THE FIVE-YEAR REVIEW AND FINAL ROD

The County agrees to review toxicity data for 1,1-DCA and PCE in the next five-year review and final ROD, per Ecology's approval. All other proposed constituents recommended for review will be discussed with Ecology.

5.9 IMPROVE REPORTING

The County agrees to implement the proposed changes to the annual reporting summarizing monitoring results beginning with the 2018 Annual Report.

5.10 REDUCE MONITORING IN THE UPPER AQUIFER

The County agrees to reduce the upper aquifer monitoring program to a frequency of once every five years pending Ecology's approval. The next sampling event for the upper monitoring program will be in April 2019.